

MARICOPA COUNTY ZONING ORDINANCE

Chapter 12 – Development Regulations

SECTION 1205. GRADING AND DRAINAGE

ARTICLE 1205.1 STATEMENT OF PURPOSE: The purpose of this section is to promote and protect the health, peace, safety, comfort, convenience and general welfare of the citizens of Maricopa County by regulating grading and drainage of all land within the unincorporated area of Maricopa County, Arizona and to minimize the possible loss of life and property through careful regulation of development, to protect watershed, natural waterways, and to minimize soil erosion, to ensure that all new development is free from adverse drainage conditions.

ARTICLE 1205.2 SCOPE: This section shall apply to all development of land and conditions which may affect drainage systems and patterns.

ARTICLE 1205.3 ADMINISTRATION: This article sets forth the duties and powers of the Drainage Administrator and the limitations on regulation.

1205.3.1 **Drainage Administrator:** The Board of Supervisors of Maricopa County shall appoint the Director of the Maricopa County Planning and Development Department or a duly authorized representative as the Drainage Administrator who shall enforce the provisions of this Regulation.

1205.3.2 **Mandatory Duties:**

The Drainage Administrator shall:

1. Review drainage reports and plans for all developments of land covered by this ordinance and approve such plans when the requirements of this section are met.
2. Investigate violations and complaints of non-compliance with the Ordinance.
3. Keep copies of all documents or other submissions made pursuant to the requirements of this section.
4. Issue notices or orders necessary to enforce the provisions of this section.
5. Upon determination that development of land subject to this Ordinance has proceeded without drainage clearance, take action necessary to obtain compliance with this Ordinance.

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1205.3.3 **Discretionary Powers:**

The Drainage Administrator may:

1. Inspect properties for which approval of drainage and grading reports and plans has been requested.
2. Inspect properties in response to complaints and, if violations are found, require compliance with the provisions of this Ordinance.
3. Upon determination that all reasonable means to gain voluntary compliance have been exhausted, record a notice of non-compliance or disclaimer with the Maricopa County Recorder in a manner so that it appears in the chain of Title of the affected parcel of land.
4. Issue notices of violation pursuant to this Ordinance.
5. Require additional information necessary to make a determination concerning violations and compliance with the provisions of this Ordinance.
6. Adopt drainage design standards, guidelines, administrative rules, procedures and policies to implement and effectuate the purposes of this section.
7. Establish, collect and regulate fees, which have been which have been approved by the BOS, for review and inspection of drainage. Fees will be waived for all Federal, State, County and Municipal governments that are developing in the unincorporated areas of Maricopa County.
8. Require appropriate financial assurances for one or more of the following drainage infrastructure projects:
 - a. Drainage control features which provide protection for the development, such as dams, levees, dikes and interceptor channels or canals;
 - b. Common area retention systems or drainage way easements affecting two or more tracts or phases of development;
 - c. A development that has been interrupted and a partially completed drainage system presents a flood hazard to adjacent property;
 - d. A project that has more than one phase and the schedule of construction of all phases is longer than one year.

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1205.3.4 **Restriction on Regulation**

1. Require a property owner to submit plans for or install or change a drainage system on property which was already developed as December 14th, 1994, the effective date of the Drainage Regulation which this Section supersedes.
2. Require submission of a drainage report and plan in connection with the repair or alteration of property as it was developed as December 14th, 1994, so long as the effect of such repair or alteration upon drainage would not be substantial or constitute an increased hazard to that or other properties.
3. A nonconforming business use may expand if such expansion does not exceed one hundred percent of the area of the original business, unless the effect thereof upon drainage would constitute a hazard.
4. Compliance with or exemption from this Ordinance does not relieve any person from liability if that person's actions cause flood damage to any other person or property.
5. This Section shall not pertain to or otherwise regulate cities, towns or other incorporated municipalities, the State or its agencies or political subdivisions. This paragraph does not exempt school districts, private utilities, and private emergency or fire services from compliance with the provisions of this Regulation.

ARTICLE 1205.4 DRAINAGE REVIEW BOARD

Pursuant to the authority granted in ARS 11-251, the Board of Supervisors shall appoint each member of the Maricopa County Board of Adjustment as a member of the Drainage Review Board (DRB) which shall hear requests for waivers to this section and appeals from interpretations made by the Drainage Administrator in accordance with the rules of this section.

- 1205.4.1. The Drainage Review Board shall select a chair and a vice chair from among its own members who shall have the power to administer oaths and take evidence.
- 1205.4.2. The Drainage Review Board shall by resolution fix the time and place of its meetings. The meetings shall be open to the public; minutes of its proceedings and records of its examinations and other official actions shall be kept and filed in the office of the Maricopa County Planning and Development Department as a public record.

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- 1205.4.3. The Drainage Review Board shall adopt rules of procedure consistent with the provisions of this Ordinance for the conduct of Drainage Review Board business including establishment of a fee schedule to cover in part administrative costs incurred in the processing of appeals, drainage clearances, drainage waivers, plans review and performance bonds. The fee schedule shall be effective when approved by the Board of Supervisors and may be separately amended from time to time as deemed necessary by the Board of Supervisors.
- 1205.4.4. Property shall be posted a minimum of fifteen days prior to a public Drainage Review Board hearing date.
- 1205.4.5. The Drainage Review Board may prescribe, in connection with the grant of any waiver or appealed clearance, conditions determined necessary to fully carry out the provisions and intent of this section.
- 1205.4.6. If the Drainage Review Board has cause to believe, after approval of a waiver, that any stipulations or conditions may have been violated, it may set a hearing for the purpose of determining whether to revoke the waiver for such violation. The Drainage Review Board may revoke the waiver upon finding a violation of the stipulations or conditions or it may grant a limited time to allow the violator to correct the violation in order to avoid revocation of the waiver.

ARTICLE 1205.5 APPEALS

- 1205.5.1 Appeals of any decision of the Drainage Administrator to the Drainage Review Board shall be filed with the Drainage Administrator within 30 days from the receipt of notice of the decision to be appealed and shall be in writing on a form provided by the Drainage Administrator. The notice of appeal shall specify the grounds for said appeal.
- 1205.5.2 During the pendency of an appeal all matters regarding the proceeding shall be stayed unless the Drainage Administrator certifies to the Drainage Review Board that by reason of facts surrounding the appeal the stay would, in the opinion of the Drainage Administrator, cause imminent peril to life or property. In such cases the other matters shall not be stayed.
- 1205.5.3 The Drainage Review Board shall fix a time for hearing the appeal and give notice to the parties in interest and to the public as set forth herein. The Drainage Review Board shall hear and decide the appeal within a reasonable time.
- 1205.5.4 Any person aggrieved by a decision of the Drainage Review Board may, within 30 days of such decision, appeal to the Board of Supervisors by filing a written notice of appeal with the Clerk of the Board of Supervisors on a form provided by

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the Drainage Administrator. Said notice of appeal shall specify the grounds of appeal. The Board of Supervisors shall conduct the appeal under such rules of procedure as they shall adopt. The decision of the Board of Supervisors shall be a final decision.

ARTICLE 1205.6 DRAINAGE WAIVER

- 1205.6.1 The Drainage Review Board shall hear and decide requests for waiver from the requirements of this section.
- 1205.6.2 Before granting a waiver the Drainage Review Board shall find that each of the following criteria is met:
- a. The grant will not result in an increase in the 100-year peak flow or discharge; and
 - b. By reason of special physical circumstances, location or surroundings of the property, strict application of the Regulation would deprive the property of privileges enjoyed by similar property; and
 - c. The waiver would not constitute a grant of special privilege inconsistent with the limitations on similar property; and
 - d. The waiver request is the minimum necessary, considering the flood hazard, to afford relief; and
 - e. There is a showing of good and sufficient cause; and
 - f. Failure to grant the waiver would result in exceptional hardship to the applicant; and
 - g. Granting the waiver will not result in additional threats to public safety, health, welfare, or extraordinary public expense, create a nuisance, the victimization of or fraud on the public and that the waiver does not conflict with existing local laws or ordinances.
- 1205.6.3 The Drainage Review Board may attach such conditions or restrictions to the granting of a waiver as it determines necessary to reduce or eliminate potential threats to public safety, health, welfare or to public or private property resulting from the granting of the waiver. The applicant may be required to post bonds, assurances or other security to guarantee compliance with the conditions and restrictions imposed.

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ARTICLE 1205.7 GENERAL PROVISIONS

This section sets forth the general requirements for Drainage Clearance, Drainage Report/Plan (Development), Design Parameters, and Drainage Report/Plan (Site).

1205.7.1 Drainage Clearance

A drainage clearance shall be required for any development or substantial improvement which in the opinion of the Drainage Administrator may have an adverse effect on existing drainage. Unless substantial construction as approved by the Drainage Administrator has occurred within 180 days of issuance of the building permit, the drainage clearance may be declared null and void and removal may be ordered of any partially completed or minor improvements which may adversely affect drainage as determined by the Drainage Administrator. Upon application, the Drainage Administrator may approve a renewal of an expired Drainage Clearance for an additional 180 days.

An exemption from requirements for Zoning Clearance, Building Permit, Health Department clearance or other permits does not constitute an exemption for drainage clearance, unless such exemption is granted by statute.

A Final Drainage Clearance must be requested prior to a final Certificate of Occupancy for permits issued to construct commercial, industrial, educational, institutional, and such dwelling units as condominiums and apartments.

A floor/stemwall/foundation inspection approval is required prior to a request for a final building inspection for a single family dwelling, additions thereto or accessory buildings.

Final drainage inspection approval shall be obtained within ninety (90) days of the date of notice of deficiencies noted at the time of the final drainage inspection_or final Building Inspection, whichever is the longer period.

1205.7.2 Drainage Report/Plan (Development)

A drainage report/plan shall be required for all subdivisions, development master plans, commercial, industrial, and multi-family residential developments. A drainage report/plan may be required for any and all other applications as deemed appropriate by the Drainage Administrator. A revised drainage report may be required for any undeveloped or partially developed portions of an approved plan when no development or improvements have occurred for two or more years. The report shall address existing drainage conditions as compared to drainage conditions at the time of plan approval. Based upon conclusions of the report, reasonable modifications to the approved plan may be required by the Drainage Administrator.

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All drainage reports/plans, including conceptual, shall be prepared and sealed by an Arizona Registered Professional Civil Engineer and shall comply with the checklists which are part of the application, together with any supporting documents deemed necessary to evaluate the drainage clearance.

1205.7.3 **No On-Lot Retention**

In no event shall on-lot retention be permitted on any lot for residential use that is less than one gross acre.

1205.7.4 **Drainage Report/Plan (Master)**

1. The amount and degree of hydraulic and hydrologic detail required shall be determined by the Drainage Administrator based upon the complexity of the master plan.
2. For any development pursuant to a master plan, all drainage shall be consistent with the drainage report/plan approved for the master planned community.

1205.7.5 **Drainage Report/Plan (Preliminary)**

1. The amount and degree of hydraulic and hydrologic detail required shall be determined by the Drainage Administrator based upon the complexity of the preliminary plan.
2. A preliminary drainage report is required for Preliminary Plat approval. The preliminary report shall address off-site and on-site runoff and the retention volume required. A more detailed report shall be submitted for Final Plat approval.

1205.7.6 **Design Parameters**

The entire drainage retention and runoff conveyance system shall be designed to eliminate or minimize stormwater runoff effects and convey the runoff through the development with minimum detrimental effects to the development or to any other property. No system shall be approved if the effect may cause an increase in the peak discharge, volume or velocity of runoff or change the point of entry of drainage onto other property during the runoff event. No system shall be approved that does not conform to Best Management Practice Standards in controlling erosion and reducing sediment load.

All development shall conform to the standards and criteria contained in the Drainage Design Manual and Drainage Policies and Standards Manual which is adopted and made a part of this Ordinance.

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1. **Storm Frequency Criteria** - The rainfall event, based upon the 100-year storm duration generating the peak discharge for the area contributing runoff to the development shall be used in designing the overall development drainage system.
2. **Retention of Storm Drainage**
 - a. The retention system shall be designed to receive and retain the volume generated from the 2-hour, 100-year runoff event falling over the entire development site including all rights-of-way, excluding off-site flows.
 - b. Drywell volume shall not be used as part of the retention volume.
 - c. On-site retention facilities may include natural depressions, man-made basins, depressed parking areas, or other methods which do not result in water being ponded longer than 36 hours. No more than 25% of public parking shown on the plan shall be used for retention and the maximum depth of the retention facilities cannot exceed 12 inches in public parking areas. Private parking areas shall not be used for runoff retention.
 - d. Retention basins shall not be located within 25 feet of septic system facilities.
 - e. Utility lines and structures shall not be located within drainage facilities unless approved by the utility company and the Maricopa County Planning and Development Department.
 - f. If reasonable alternatives are not available, detention in the County right-of-way may be acceptable provided the Maricopa County Department of Transportation approves the design.
 - g. A right-of-way or public utility easement shall not be designated for drainage or retention without prior written approval of the appropriate agency or affected utility.
 - h. In any landscaping and maintenance agreement, provisions shall be made for an annual maintenance certification.
 - i. On-site drainage shall be either to the street or to a designated drainage easement/tract or approved drainage way with adequate outfall.
3. **Stormwater Disposal** - On-site runoff that has been retained shall be disposed of within 36 hours either by percolation, drywells or draining into an approved drainage way. Flows from basins shall not exceed pre-development flows and shall

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be in the location and direction of the historic flows. If runoff is to be conveyed by an underground system, complete detailed plans shall be submitted.

4. **Drywell Design**

- a. If drywells are to be utilized for stormwater disposal, certification shall be required indicating that the drywells meet the provisions of the Arizona Department of Environmental Quality.
- b. Drywells shall be used only for stormwater disposal and not for disposal or deposit of wastes or other contaminants.
- c. Proof of drywell registration with the Arizona State Department of Environmental Quality shall be required prior to final as-built approval or issuance of any drainage clearance.
- d. Certification that the drywell meets requirements of this regulation shall be submitted at the time of installation.

5. **Road Design**

- a. To facilitate drainage the design of roadways in the system shall conform to the Drainage Design Manual and Maricopa County Department of Transportation requirements.
- b. Adequate drainage ways shall be constructed to convey the street design flow if that flow is designed to leave the public right-of-way. Such drainage ways shall be platted as drainage easements or as separate tracts with maintenance provisions designated.
- c. The Drainage Administrator may require construction of a culvert or bridge where a road crosses a natural drainage way. The size of the culvert or bridge shall conform to Maricopa County Department of Transportation standards.
- d. If roads are designed to convey runoff, the amount conveyed shall not exceed design standards. Additional flow shall be conveyed in drainage ways if the design standards are exceeded or the depth within roadways is greater than 8 inches.
- e. To prevent back and head cutting, dip sections and culvert crossings of rights-of-way shall have adequate cutoff walls or aprons constructed of non-erodible material.

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- f. Each site shall have one all-weather road access with a maximum flow of 6 inches in depth over the roadway or overflow section during the 100-year peak flow event.
6. **Finished Floor Elevation** - Finished floors of a building shall be elevated a minimum of one foot above the highest grade point within ten feet of the foundation of the building. A finished floor elevation lower than the minimum may be permitted provided it is determined by technical data and certified by an Arizona Registered Professional Civil Engineer to be the minimum necessary to be safe from inundation by the 100-year peak runoff event. Finished floor elevations may be required to be referenced to a known benchmark. Non-livable buildings (see definitions) are exempt from this section.
7. **Floodplain Development** - That portion of a development that is within a designated special flood hazard area shall comply with the Floodplain Regulation for Maricopa County. If a developer desires to re-delineate a floodplain, the required data shall be submitted to the Flood Control District.

Development within a delineated floodplain is not exempt from drainage and grading requirements of this section.

8. **Landscaping** - Walls, fences, decorative borders, berms and other similar structures or features less than one (1) foot in height above grade are permitted without first obtaining a drainage clearance provided they do not have an adverse effect on adjacent land or obstruct, retard or divert any drainage way or other drainage feature.
9. **Grading**
 - a. The entrance and exit points and continuity of all natural drainage ways on a development hillside site, and their preservation shall be provided for in the plan.
 - b. All engineered grading and drainage plans with any cutting or filling of slopes shall meet the provisions of the Maricopa County Comprehensive Building Code.
 - c. Subsurface drainage for cuts and fill slopes must maintain the stability and integrity of the cut or fill slope.
 - d. Drainage facilities designed to convey runoff to the nearest approved drainage way.

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- e. Erosion of the ground in the area of discharge shall be prevented by installation of non-erosive cutoff walls, aprons or other approved devices.
- f. Cut and fill slopes must be protected against erosion by suitable plantings, check dams, riprap or other approved methods.

1205.7.7 **Development Drainage Report/Plan for Minor Accessory Construction on Commercial Projects**

For minor accessory construction for commercial projects, a development drainage report/plan shall be required but may not be required to be prepared by an Arizona Registered Professional Civil Engineer as directed by the Drainage Administrator. In such cases the plan shall include but not be limited to the following information:

- 1. Plan requirements:
 - a. Maximum construction disturbance limits.
 - b. All information required by Article 1205.8 (General Provisions) and any other Maricopa County Ordinance regulation.
 - c. Any supporting information which the Drainage Administrator deems necessary to evaluate the drainage clearance.
- 2. Minor accessory construction on commercial projects shall be limited to signs, ADA ramps, propane tanks, trash enclosures, billboards and wireless communication facilities, mobile storage containers and other projects as determined by the Drainage Administrator.
- 3. Concurrent projects that cumulatively exceed a total project construction envelope and disturbance limit of 1,500 sq. ft. shall not be considered as meeting Section 1205.7.7 and must meet the requirements of Section 1205.7.

ARTICLE 1205.8 AREA DRAINAGE MASTER STUDY

1205.8.1 **Adoption:** Whenever an Area Drainage Master Study authorized under this section has been completed, such plan including uniform rules for development may be submitted to the Board of Supervisors for adoption as an Area Drainage Master Plan. If adopted by the Board of Supervisors, the Flood Control District of Maricopa County shall enforce the Area Drainage Master Plan under this Ordinance.

1205.8.2 **Public Notification:** During the preparation of an Area Drainage Master Plan, the owners of record of real property within the drainage master plan area shall be

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publicly notified by the Flood Control District of Maricopa County so that the owners may have an opportunity to provide input to the planning process.

- 1205.8.3 **Minimum Standards:** Requirements for development within an adopted Area Drainage Master Plan shall meet or exceed the Uniform Drainage Standards adopted by the Board of Supervisors or this Ordinance. In case of conflict, the most stringent requirements shall prevail.

ARTICLE 1205.9 COMPLIANCE, ENFORCEMENT AND PENALTIES

This Article sets forth requirements applicable to all hillside district developments, except single family residential, and are in addition to the requirements set forth in Chapters 6, 7, 8, and 9.

1205.9.1 **Deed Restrictions**

Recording of deed restrictions which include drainage easements, tracts, channels or common areas used for drainage purposes to be maintained by the property owner may be required. Recordation of such deed restrictions shall be noted on the final plat.

1205.9.2 **Performance Assurances**

Financial assurances may be required by the Drainage Administrator to ensure construction, completion or maintenance of approved drainage facilities. Assurances shall be released upon verification of compliance with approved plans and all provisions of this Ordinance.

1205.9.3 **Regulation Violation**

It is a violation of this Ordinance:

1. to develop, construct, alter, use, repair, improve, fill, divert, obstruct, remove or commence the creation, construction, alteration, repair, improvement, filling, diversion, obstruction or removal of any wash, culvert, easement, channel, ditch, berm, retention basin, wall fence, other structure or use which may affect any natural drainage or improved drainage design or drainage system without obtaining a drainage clearance from the Drainage Administrator;
2. for any person to place or allow to be placed any fill material, rubbish, trash, weeds, filth or debris which obstructs, retards or diverts any natural or improved drainage system upon any private or public property located in the unincorporated areas of Maricopa County;

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3. for failure to maintain any natural drainage system or any drainage easement, tract, channel or common area created pursuant to this Regulation;
4. for failure to obtain the required Drainage Clearance or final drainage inspection approval prior to obtaining a final Certificate of Occupancy for permits issued to construct commercial, industrial, educational, institutional, and such dwelling units as condominiums and apartments;
5. for failure to obtain the required floor/stemwall/foundation elevation inspection approval prior to securing a final building inspection for a single family dwelling including mobile/manufactured home, additions thereto or accessory buildings;
6. for any owner (builder/developer) to fail to correct any deficiencies noted at the time of the final drainage inspection. A Final drainage inspection approval shall be obtained within ninety (90) days of the date of notice of such deficiencies or final Building Inspection, and/or occupancy of the dwelling unit, whichever is the longer period.
7. Any party who performs or authorizes work is in violation of the Ordinance for failure to correct any deficiencies noted at the time of final drainage inspection if the property is not compliant with the requirements of this section.

1205.9.4 **Violation Removal**

- 1205.9.4.1 If the property owner fails to remove fill material, rubbish, trash, weeds, filth, debris or any other obstruction that the Drainage Administrator determines obstructs, retards or diverts a natural or improved drainage system, after 30 days written notice from the Drainage Administrator to remove or abate the condition, the Drainage Administrator may, remove or cause the removal of the fill material, rubbish, trash, weeds, filth or debris upon the Director's determination that failure to remove or abate the condition constitutes a threat to the public health, safety or welfare.
- 1205.9.4.2 The charge for the removal shall be billed to the property owner and collected by the County Attorney by use of all appropriate legal remedies, including but not limited to a lien against the property for the costs of removal plus attorneys fees and costs of collection.
- 1205.9.4.3 The determination that the condition constitutes a hazard to the public health, safety or welfare may be appealed in the same manner as appeals from

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decisions of the Drainage Administrator as set forth in Article 1205.6 above and such appeal shall be filed within 30 days of receipt of the written notice from the Drainage Administrator.

1205.9.4.4 The Drainage Administrator shall be under no affirmative duty pursuant to this Article to either identify violations or undertake their removal. Removal pursuant to this section is discretionary with the Drainage Administrator.

1205.9.4.5 The property owner shall be liable for any damages caused by failure to remove or abate the condition.

ARTICLE 1205.10 DEDICATIONS

The Board of Supervisors may require, as a condition of issuance of a drainage clearance or waiver, dedication, or the use to the County or the Flood Control District of land necessary for construction of area drainage facilities to be constructed in accordance with a master drainage plan or development drainage plan if the need for the facility emanates at least in part from the proposed development. The amount of land required shall be proportionate to the amount of runoff contributed by a parcel to the total runoff calculated for the master drainage plan or development drainage plan.

ARTICLE 1205.11 WARNING & DISCLAIMER OF LIABILITY

The degree of protection from flooding due to storm water runoff required by this Ordinance is considered reasonable for regulatory purposes and is based on engineering and scientific methods of study. Compliance with this Regulation does not ensure complete protection from flooding and is not to be taken as a warranty. Greater storms may occur or the water damage hazard may be increased by man-made or natural causes such as silting of channels and canals, pipe and culvert openings restricted by debris, natural erosion or man-made obstructions or diversions. This Regulation does not imply that land uses will be free from flooding or flood damage. This Regulation shall not create liability on the part of Maricopa County or any officer or employee thereof for any flood damages that may result from reliance on this Regulation or any administrative decision lawfully made there under.